Hermann Lebherz presents:
Urban renewal of an Inner City shopping mall

- an approach towards a green building
- a case study of the FMZ center in Fulda, Germany
Fulda is area with less than 5% unemployment – east of Frankfurt
An hessian state agency – has been involved to redevelop the abandoned plant near the city centre ring road – in order to revitalise the abandoned plant.
• In the olden days excess materials have been dumped in a near by clay pit

• Earlier redevelopment plans had been abandoned through excessive costs
An old enamelling plant from 1920 manufactured pots and pans with enameling the surfaces.
• 43 % of the building materials for the main structure had not to be moved with trucks to the building site, thus producing less carbon.

• The existing fabric was reused.
• Roofs had to be recladded and heavily insulated with 220 mm mineral fibres
The main old structure formed an entrance for the mall
• After the plant was abandoned, parts of it were listed as protected buildings, since it was an early example of a structural frame in reinforced concrete.

• The outside was clad with lime stone.
Ab artists rendering of the recycled structure with visitors moving above the sealed clay pit with toxic materials
• To reduce the carbon footprint:

• Plots of land with urban derelict industrial plants were cleaned up and recycled

• Building materials were cleaned up and reused

• All roofs were insulated with 220 mm
• Old walls were improved with 160 mm internal insulation
• In order to achieve gold standard of the DGNB (German Society for Sustainable Buildings) the inside concrete structure had to be clad with autoclaved aerated concrete blocks of 160 mm.
• Highly efficient air handling plants (74%) with heat pumps for energy recuperation are being employed,

• According to a climate protection aims of the German federal government against the greenhouse effect an new developed cooling system with non environmentally harmful gas, was developed by carrier for the refrigerators.

• By implementing an pilot project with carbon dioxide gas, a new source for cooling the refrigerators was found
Supermarket structure ready to be furnished and opened showing the original pattern of making with the 1920s concrete frames
New life with fruits and vegetables instead of enamelled pots and pans
Gross letable area: 17,000 m²

- 600 parking spaces for free
- 17,000 m² Retail units
- 450 m² servicing spaces
A new structure complements the old structure and gives additional space for a mall and shops.
• Besides catering for cars the DGNB asks for roofed over cyclist spaces.

• Even a shower for cyclists is being cated for as asked by the DGNB
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